

Dear

A recent evaluation by the Estero Bay Agency on Bay Management (ABM) of the Estero Bay and Watershed Assessment (EBWA) indicates an alarming potential for further degradation of Estero Bay and its tributaries. The analysis of water quality data for Estero Bay's tributaries from 1990 to 1997 in the Watershed Characterization (Volume B) indicates a number of problems. Average annual total phosphorus concentrations are, in many cases, at least twice as high as the median values reported for streams in southern Florida (Friedmann and Hand 1992). In addition average annual dissolved oxygen concentrations for the Bay's tributaries indicate a declining trend between 1990 and 1997. Furthermore, it is likely that average annual water quality values are a conservative characterization of water quality since this approach tends to mask or smooth relatively high values associated with high runoff events during the wet season. Average values for the wet season and dry season would be more revealing. The EBWA also predicts sediment, nutrient and hydrologic loadings from models of 1995 land use and has ranked the tertiary basins regarding their potential for nutrient and sediment loads. The identification of basins having the most potential for degrading the resource is an important tool for initiating corrective measures to restore Estero Bay and its tributaries.

The U.S. Environmental Protection Agency has reviewed water quality for Estero Bay and the Estero and Imperial River integrated watershed from 1970-1998 as a part of the Southwest Florida EIS (July 2000). The "analysis of water quality trends over time indicates an overall degradation of water quality in the 1990's." In addition the Imperial River, Hendry Creek, Spring Creek, Estero Bay drainage and Estero Bay have been placed on EPA's 1998 303(d) list by FDEP. Section 303(d) of the Clean Water Act requires each state to develop a list of waters not meeting water quality standards or not supporting their designated uses. "In time, Total Maximum Daily Loads (TMDL) are required for these waters because technology-based effluent limitations, current effluent limitations required by State or local authority, and or other pollution control requirements are not stringent enough to meet current water quality standard. (FDEP 1998)." The EPA analysis also revealed that the Estero-Imperial integrated watershed was one of four watersheds in the entire study area that contributed the most to degraded water quality based on 1995 land use.

Additional sources of information on water quality for the Bay and its tributaries also indicate instances of poor water quality or that the Bay and its tributaries are not meeting the water quality standards as indicated by their intended use classification. *Reports by Ceilley and Kibbey, 1990. Camp Dresser & McKee 1985. Estero Bay Marine Laboratory Inc., among others. indicate current (when published) and potential problems associated with various pollutant sources that corroborate and predict the findings of the EPA that water quality trends for the Bay and tributaries indicate overall degradation during the 1990's.*

It is important to note that the Bay and all of its tributaries are classified as Outstanding Florida Waters (OFW). OFW regulations (adopted In 1990 for the Estero Bay tributaries) do not allow DEP to issue permits for direct pollutant discharges which would lower ambient water quality or for indirect discharges which would significantly degrade the Outstanding Florida Water (FS 403.06 1(27)). Through 1997 FDEP had permitted 101 domestic point sources and 13 industrial point sources of pollution within the Estero Bay watershed (EBWA 1999). Pending further analysis, It should be noted that not all of these point sources represent direct discharges to the Bay or tributaries but more likely represent indirect discharges. In addition, the SFWMD has permitted *numerous* stormwater *facilities with outflows* in the same area.

Further review of the EBWA indicates that urban land use within the watershed has reached alarming proportions. The proportion of urban land use in the Hendry Creek and Ten Mile Canal secondary basins in 1995 was 66.6 and 43.0 percent respectively (EBWA, Vol. D). Total urban land use in the entire watershed was estimated at 11% in 1995 and is expected to reach 50% by 2010 (Southwest Florida Regional Planning Council). Declining water quality in the Bay and its tributaries as summarized in the EBWA, is due largely to the rapid and extensive urbanization of the watershed. Such urbanization has created excess and altered (from historical) freshwater discharges, increased nutrient and sediment loading, wetland loss, increased impervious surfaces, lowered water tables and downstream flooding. Stormwater facilities and outflows for much of this urbanization has been permitted by the SFWMD as delegated by FDEP. It is now apparent that further permitting of *stormwater facilities with outflows and domestic and industrial discharges* within the watershed will continue to lower water quality for the Bay and its tributaries.

The EBWA details potential corrective options for restoring the resource which include: 1) Require greater stormwater attenuation and treatment; 2) Designate nutrient sensitive basins and permit accordingly; 3) Require demonstrated concurrency with loads reduction; 4) Construct regional stormwater treatment facilities at strategic, basin-nodes; 5) promote best management practices. *It should be noted however, that many BMP's require updating and analysis and that BMP's alone will not solve the water quality problem.* A further analysis of corrective options outlined in the EBWA indicate that regional stormwater treatment (Option 1) is the most feasible approach for nutrient, total suspended solid (sediment) and hydrologic load reductions to the Bay and its tributaries. In addition, there are existing federal funding sources for regional stormwater treatment.

The ABM would like to know what plans the _____ has for restoring and improving water quality in Estero Bay and its tributaries, specifically with regard to corrective options as outlined in the EBWA? *Also, attached are specific expectations by the ABM for improving water quality In the Bay and Its tributaries.*

Because of the rapid and ongoing urbanization of Estero Bay's watershed and the current cumulative impacts of *the various* permitted discharges, the ABM recommends suspension of all further permitting of stormwater, domestic and industrial discharges within the Estero Bay Watershed until substantive progress can be made toward corrective measures to restore the resource and comply with Florida law regarding Outstanding Florida Waters and federal law under the Clean Water Act. We do not feel that it is appropriate to defer this problem to such federal Initiatives as the Southwest Florida Study which may not be comprehensive and timely enough to address this problem.

Sincerely,

James W. Beaver
Chairman, Estero Bay Agency on Bay Management

cc. Mr. Frank Finch, FDEP, FWC, SWFRPC. USEPA, USFWS, USACOE, CHNEP, Lee County BOCC, various media sources

The expectations as outlined below are to be attached to the above letter.

Major Expectations:

- 1) Sustain and improve water resources of Estero Bay and its watershed.
- 2) Sustain the local economy dependent on water quality and supply.
- 3) Reduce flooding.

Specific Expectations:

- 1) Conduct a cumulative impact analysis of existing point source discharges within the basin for development of a nutrient budget and assimilative capacity of Estero Bay and its tributaries.
- 2) Begin instituting corrective options including Pollutant Load Reduction Goals and/or TMDLs, and options 1-5 as outlined in the EBWA for the Bay and Its tributaries.
- 3) Require regional stormwater treatment for all future (time determined) stormwater treatment facilities. Impact fees and/or the creation of a stormwater utility are possible funding sources in addition to federal funding sources.
- 4) Require greater detention and treatment for 10 Mile Canal effluent to maintain an estuarine condition in Mullock Creek and prevent abrupt salinity changes in northern Estero Bay.
- 5) Investigate a holding reservoir for excess freshwater discharge from 10 Mile Canal for domestic use and or aquifer recharge during the dry season. This type of project could also be supported by a stormwater utility and or related impact fees.

Potential Role of the ABM

- 1) Become a leader in creating forums or other vehicles that bring together stakeholders (public and private) and regulating agencies for restoration goal development and implementation.
- 2) Establish through the CAP Committee, citizen stewardship groups within tertiary basins causing the highest pollution loads to the Bay and its tributaries. Neighborhood stewardship groups would implement BMPs for lawn irrigation and fertilization and provide political support for restoration efforts. The EDWA has determined the tertiary basins with the most potential for damage.
- 3) Monitor and evaluate progress regarding specific expectations above (BMP Committee).
- 4) Develop an ABM web site to list ABM goals, document progress toward goal implementation including current trends in water quality, provide information on watershed BMP's, coordinate citizen stewardship groups, develop a Bay and watershed related community calendar.